

## **CHAPTER FIVE**

### **DATA ANALYSIS**

#### **5.0. Introduction**

This chapter is divided into four main parts. The first part describes the demographic and the organizational related characteristics of the respondents. The second part answers the research questions, i.e., the respondents' perception towards dimension that indicate the effectiveness of management of change; their attitude towards change; their behavior in the implementation of quality principles; and the effectiveness of the organizational functions. Finally, the third part discusses the results of the hypotheses tests.

##### **5.1.1. The Respondents' Demographic Characteristics**

A total of 160 sets of the questionnaire was distributed. 120 sets were returned, yielding a response rate of 74%. However, only 118 sets were considered for this study because the other two copies were not completely filled up. A majority of the respondents in this study were female managers 61% while male only made up of 39%. Most of the managers were from the age group of below 30 years (38%) and the rest of the age group, i.e., 31 – 35 years; 36 – 40 years and above 40 years were having about equal distribution of 20%. Three-quarters of the respondents were married. A distribution of the respondents according to their gender, age and status is presented in Table 4.

Table 4: Distribution of respondents' gender, age and status

<i><b>Gender</b></i>	<i><b>Frequency</b></i>	<i><b>Percent</b></i>
Male	46	39.0
Female	72	61.0
Total	118	100.0
<i><b>Age</b></i>	<i><b>Frequency</b></i>	<i><b>Percent</b></i>
< 30	45	38.1
31 - 35	26	22.0
36 - 40	24	20.3
> 41	23	19.5
Total	118	100.0
<i><b>Status</b></i>	<i><b>Frequency</b></i>	<i><b>Percent</b></i>
Married	88	74.6
Single	28	23.7
Others (Divorce)	2	1.7
Total	118	100.0

### 5.1.2. The Respondents' Organizational Related Characteristics

The respondents were from five major position categories. Administrative Officers and the like at Category N41 make up the biggest number (46%) and the smallest was Director Category N54 (3%). This was due to the high and low numbers of population in these categories respectively. In relation to academic qualification, 39%, 52% and 26% have obtained Diploma, Bachelors and Masters Degree respectively. The respondents' working experiences which was measured through the length of services range from one and a half month to 20 years. Out of 118 respondents, 44% of them have served the University below than four years, 35% for 5 to 12 years and the balance 21% over 13 years including 7% who had worked for over 17 years. This break down is depicted in Table 5.

Table 5: Distribution of respondents according to position, educational background and experiences

<b><i>Position</i></b>	<b><i>Frequency</i></b>	<b><i>Percent</i></b>
Director	4	3.4
Deputy Director	16	13.7
Administrative Officer	54	46.2
Sen. Executive Officer	6	5.1
Executive officer	37	31.6
Total	118	100.0
<b><i>Education</i></b>	<b><i>Frequency</i></b>	<b><i>Percent</i></b>
Diploma	39	33.1
Bachelors Degree	52	44.1
Masters	26	22.0
Others (SPM)	1	0.8
Total	118	100.0
<b><i>Experience ( years of services)</i></b>	<b><i>Frequency</i></b>	<b><i>Percent</i></b>
< 4	52	44.1
5 - 8	25	21.2
9 - 12	16	13.6
13 - 16	17	14.4
> 17	8	6.8
Total	118	100.0

## 5.2. Perception Towards the dimensions that indicate the Effectiveness of Management of Change

One of the objectives of this study is to find out the managers' view on the effectiveness of management of change. The questions in this part were divided into five with the purpose to examine the managers' perception on the effectiveness of change management which was measured through five dimensions, i.e., organizational

commitment, work culture, participative management, communication system and organization learning. These questions were tapped on a 5-point scale. The results in Table 6 show that the means of the levels of perception among managers towards these dimensions ranging from 3.55 – 3.98, i.e., at the satisfactory level. The detail description about each dimension will be discussed under the following sub-topics.

Table 6: Managers' perception towards the effectiveness of management of change

Dimensions	N	Mean*	S. D.
Commitment	118	3.98	.50
Culture	118	3.59	.51
Participative management	118	3.75	.45
Communication	118	3.55	.53
Organizational learning	118	3.88	.46

\* On a 5-point scale

### 5.2.1. Organizational Commitment

This section examines the level of organizational commitment of the managers to the organization. There are five aspects pertaining to commitment as explained in Table 7. The study recorded the means of managers' views and revealed that the highest mean (4.34) is in the aspect of 'willing to put a great deal of their effort beyond what is normally expected in order to help the University to be successful'. Besides that, the managers really 'care about the fate of the University' (mean = 4.19) and they are 'proud to tell their friends that this organization is a great organization to work for' (mean = 4.16). Other aspects that were highly acceptable were that 'they would not regret leaving the organization' and 'they would not accept almost any type of job assignment in order to keep working for this



organization'. The means for these two aspects were 3.52 and 3.69 respectively. Thus, it could be said that the level of commitment of the managers is high.

### **5.2.2. Work Culture**

Since its establishment in 1983 by the Malaysian Government, the University has developed its own culture which is based on Islamic values. For example, every meeting commenced with the recitation of *Surah al-Fatihah* and adjourned with the recitation of *Surah Al-'Asr* and *Tasbih Kaffarah*. In addition to that, in every event including in the classroom, the female and male seats are divided accordingly. Members of the organization are encouraged to respect each other and to strive for excellence.

The information in Table 7 indicates that on the whole, the respondents' satisfaction with the work culture is at the average level with the means ranging from 3.31 – 3.76. The lowest mean (3.31) is in the aspect of people rewarded for their work. This shows that managers were favourably satisfied with the rewards system. Beside that the mean for people live up to high ethical standards is also quite positive, i.e., 3.53 and this indicates that there is room for improvement.

### **5.2.3. Participative Management**

In order to know the level of participation of the organizational members, five questions were asked which include information sharing, consideration of employees' views and empowerment to make decision. Table 7 also presents managers' views on levels of involvement or participation of the organizational members. The means for information

sharing is low in comparison to the other four aspects, i.e., 3.39. It is followed with the aspect of the influence of their views to the organization ( $M = 3.61$ ). Under participative dimension, the managers are highly satisfied with the condition as they are allowed to participate in the planning for improving their unit's services with the means of 4.05.

#### **5.2.4. Communication System**

The respondents' view about the communication system in this organization is also presented in Table 7. The respondents' perception towards the communication system is at the satisfactory level as indicated by the means of all items range from 3.37 to 3.77. The managers are of the opinion that there is room for improvement in relation to the need for having coordinated planning between units as the mean obtained is only 3.37. In addition to that, managers are also moderately satisfied with the rational manner of resolving conflicts. The willingness and openness of the top management to be informed with the wrong doing or mistakes were highly evaluated ( $M = 3.77$ ) in comparison with the other four items of the communication system.

#### **5.2.5. Organizational Learning**

Members of the organization are encouraged to learn from their mistakes. Staff who made their first mistake would be advised to improve their performance. In addition to that, the organization has established a Remedial Grievance System where internal and external customers are welcome to forward their dissatisfaction towards the working system and procedures and also the misconduct of any of the organization members. Prior to any

corrective action, the complaint received would be fairly investigated to avoid making inaccurate evaluation.

Managers were asked about the extent of the practice of organizational learning concept by the University members. The highest mean of 4.27 (S.D. = 0.61) was given to their willingness to share information with their colleagues if it helps them in their job. In addition to that the high mean of 4.08 was also given to learn from mistakes, correct them and try not to repeat them. Learning from books was moderately (mean = 3.38) practiced. This may be due to managers' lack of time during working period to read books as they are expected to supervise daily operations of the organization. This is depicted in Table 7.

Table 7: Managers' perception towards organizational commitment, work culture, participative management, communication system and organization learning

Dimensions	M	S.D.	Total
<b>Commitment</b>			
Proud to tell people of working in this organ.	4.16	0.80	118
Would not regret leaving this organization	3.52	1.01	118
Care about the fate of this organization	4.19	0.62	118
Willing to put a great deal beyond normal expectation	4.34	0.54	118
Accept almost any type of job	3.69	0.89	118
<b>Culture</b>			
People live up to high ethical standards	3.53	0.76	118
People do a good job	3.66	0.72	118
People work together	3.69	0.74	118
People seek advise from supervisor to improve work	3.76	0.69	118
People rewarded for good work	3.31	0.98	118
<b>Participative Management</b>			
My views have real influence	3.61	0.76	118
Members able to establish their own goals	3.82	0.76	118
Information is widely shared	3.39	0.85	118
We are allowed to participate in the planning	4.05	0.73	118
I am empowered to make decision	3.87	0.76	118
<b>Communication</b>			
Top management often share information with us	3.47	0.86	118
Different units plan and coordinate together	3.37	0.85	118
Conflicts resolved in a rational manner	3.54	0.83	118
Communication across hierarchical levels is often experienced	3.60	0.74	118
Top management encourage us to let them know about wrong things	3.77	0.84	118
<b>Organizational Learning</b>			
Learn from mistake & try not to repeat	4.08	0.74	118
Learn quality from books, etc.	3.38	0.85	118
Apply what we learn from training	3.85	0.70	118
Adopt relevant ideas of other units	3.83	0.75	118
Information is shared to facilitate job	4.27	0.61	118

### **5.3. Attitude towards Change**

This part examines the respondents' attitude as well as the perception on the organization attitude towards change. Involvement of all employees in the management of change process is very important. Table 8 shows that about 92% of the respondents agreed with this statement. The finding also shows that 62% of the respondents agreed that teamwork fosters a conducive environment for everyone to work towards common goal. And more than 62% also agreed that the organization has the ability to change. These are among two important factors for the success of the change effort.

The willingness to cooperate and the availability of the resources should be enriched and utilized at the utmost level. 'Not resistant to change' and 'having well designed of change planning and strategy' showed moderate agreement with the means of 3.36 and 3.43 respectively. 43% of the respondents were not sure with the fairness of the rewards system throughout the change process. 9% dissatisfied with the level of commitment and support of the top management towards the change efforts.

Table 8: Respondents' attitude towards change

Attitude	Percentage (%)					Means	S.D.	Total n
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree			
Not resistant to change	10.2	41.5	27.1	16.1	5.1	3.36	1.03	118
Have enough policies	9.3	55.9	16.1	16.9	1.7	3.54	0.94	118
Policies and procedures keeps up-to-date	9.3	48.3	29.7	11.9	0.8	3.53	0.85	118
Review methods of working & introduce improvement	14.4	55.1	20.3	10.2	-	3.73	0.83	118
Encourage creativity & initiative	22.9	58.5	11.9	6.8	-	3.97	0.79	118
Has the ability to change	22.9	62.7	9.3	4.2	0.8	4.03	0.76	118
Provide means to stimulate staff to innovate	9.3	49.2	36.4	4.2	0.8	3.61	0.75	118
Has well designed of change planning & strategy	6.8	40.7	42.4	9.3	0.8	3.43	0.79	118
Top management fully supported, committed and involved	11.9	49.2	29.7	5.9	3.4	3.60	0.90	118
Attempt to find reason for not meeting particular goal	8.5	52.5	32.2	5.1	1.7	3.61	0.78	118
Training for employees	16.9	57.6	16.9	6.8	1.7	3.81	0.86	118
Fair in rewarding	10.2	28.0	43.2	10.2	8.5	3.21	1.04	118
Employee must participate	39.0	53.4	6.8	0.8	-	4.30	0.63	118
Teamwork is important	32.2	62.7	5.1	-	-	4.27	0.55	118
Employees updated with change efforts	7.6	44.1	39.0	7.6	1.7	3.48	0.81	118

#### 5.4. Behavior towards the Implementation of Quality Principles

Positive attitude alone is not sufficient and will not guarantee that the change process would be a success. It must be followed with appropriate behavior. When attitude and behavior work hand in hand, then, what is talked is substantiated with what is done. The existence and congruency of these two elements in organization would facilitate the effectiveness of the change process. Table 9 presents managers' views on the level of implementation of quality principles in this organization.

Most of the aspects under this part show positive results with most of the means are above 4. These show that quality principles are understood and have been implemented. This may be due to that fact that most of the departments are involved in the process to achieve MS ISO 9002: 94. 38% of the respondents are of the opinion that they need to improve the aspect of tracking their work performance with a systematic measure as indicated in the result. In addition to that, 69% of the respondents admitted that they always do things 'right the first time'; 43% always looking for ways to improve their performance; 59% motivate others to be quality conscious; and 58% anticipated problems related to work.

However, a high percentage (37%) of the respondents admitted that what seems to be lacking is tracking the work progress with systematic measure. This aspect is related to the inability to set measurable work target as agreed by 20% of the managers. Even though helping colleagues including those from other units is important, 16% are of the opinion that they are not always practicing this behavior.

Table 9: Behavior towards the implementation of quality principles

Behavior	Percentage (%)					Means	S.D.	Total n
	Never	Rarely	Some- times	Most of the time	Always			
Know the needs of customers	-	0.8	13.6	56.8	28.8	4.14	0.67	118
Follow up on services provided to clients	-	4.2	11.9	52.5	31.4	4.11	0.77	118
Doing things 'right the first time'	-	1.7	8.5	61.9	28.0	4.16	0.64	118
Checking work to ensure it is done properly	-	0.8	11.0	49.2	39.0	4.26	0.68	118
Anticipate problems related to duties	-	0.8	14.4	57.6	27.1	4.11	0.66	118
Try to meet the standard required	-	0.8	6.8	51.7	40.7	4.32	0.64	118
Looking ways to improve work output	-	0.8	9.3	46.6	43.2	4.32	0.68	118
Motivate others to be quality conscious	-	-	8.5	58.5	33.1	4.25	0.60	118
Help colleagues including other units	-	3.4	16.1	50.0	30.5	4.08	0.78	118
Assessing others' work objectively	-	-	11.0	65.3	23.7	4.13	0.59	118
Prepared for meeting and discussion	-	1.7	10.2	59.3	28.8	4.15	0.66	118
Praise people who do quality works	0.8	1.7	14.4	45.8	37.3	4.17	0.80	118
Set work targets and measure it accordingly	0.8	2.5	20.3	50.0	26.3	3.98	0.81	118
Track work progress with systematic measure	0.8	7.6	37.3	36.4	17.8	3.63	0.89	118



**5.5. The Effectiveness of the Organizational Functions**

In this research, the organization functions that have been identified are organization purpose, organization structure, mechanisms, within organization relationships, rewards system and leadership contribution. Based on the literature review, the effectiveness in these variables is expected to be able to contribute to the effectiveness of change management. Table 10 indicates the overall organization functions as perceived by managers. The results show fairly 'satisfactory responses' with the means range from 4.9 – 5.6. The detail of the discussion about each variable is discussed in the following sub-topics.

Table 10: The effectiveness of the organizational functions

<b>Organizational Functions</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev</b>
Organization purpose	118	3.60	7.00	5.61	.75
Organization structure	118	2.40	7.00	5.22	.90
Mechanisms	118	3.40	7.00	5.40	.75
Intra organization relationships	118	3.20	7.00	5.58	.77
Rewards system	118	2.40	6.60	4.92	.96
Leadership support	118	2.80	7.00	5.44	.91

**5.5.1. The Effectiveness of the Organization Purpose**

The effectiveness of the organization purpose was measured by its clarity, level of agreement of employees towards it, employees understandable of it, organization priorities to achieve its goal and the ability of each division to establish its own goals which is congruence with the main organizational goals.

The information in Table 11 shows that the respondents were agreed that the organization purpose is 'clearly stated' (mean = 5.93, S.D. = 1.1), 'understandable' (mean = 5.96, S.D. = 0.9) and 'each work unit goals are recognized by members' (mean = 5.7, S.D. = 0.87). On the other hand, the mean for 'understandable' of the organization priorities is 4.98. Thus, we can say that the percentage of dissatisfaction with this item is quite high. This indicates that the University should plan to improve this aspect.

### **5.5.2. The Effectiveness of the Organization Structure**

A change in the structure merely does not necessarily guarantee that the new objectives will be attained if they are not accompanied with changes in attitude and behavior of the organizational members as they are the ones who will implement the new expectation of the organization. Table 11 presents managers' views on levels of agreement towards the organization structure. The means of these five factors vary from 5.06 to 5.52. The managers were highly satisfied with the organization structure as it is intended to reach the organizational goals ( $M = 5.52$ ). On the other hand, whether the organization structure helps to reach the organization goals was less satisfied ( $M = 5.06$ ). The managers were also of the opinion that their units were also having a well-designed structure ( $M = 5.21$ ). In order to achieve quality culture, it can be said that the university has an effective structure.

### **5.5.3. The effectiveness of the Mechanisms**

Mechanisms can be understood in a simple way as bridges that connect organization structure with organization purpose and they try to bond these variables. In

addition to that, they should go hand-by-hand with any changes that happen. It should be updated to ensure its congruence with the above two variables and failure would hamper the achievement of the organization target. Thus, the University has established several new mechanisms in order to achieve quality culture as explained in Chapter Four.

Managers were asked on aspects pertaining to the mechanisms available to ensure quality culture prevails. Based on Table 11, the study recorded the means of managers' views and reveal that the highest mean ( $M = 5.77$ ) is in the aspect of supportiveness of the immediate supervisors. The lowest aspect is insufficient mechanisms to bind the organization with the mean of 5.11 (S.D. 1.45). A majority of the respondents highly agreed with the effectiveness of the organization mechanisms.

#### **5.5.4. The Effectiveness of Intra Organizational Relationships**

A relationship between employees and between different units is also important to ensure the success of any changes. To develop a good relationship, all members of the organization irrespective of their position are encouraged to respect each other, for example by giving 'Salam' or smile and from time to time they need to be reminded to avoid backbiting and slandering.

The respondents were asked about the extent of goodness of the relationship that exists in the organization. Table 11 shows that managers were highly satisfied with 'harmonious relationship with supervisors' and 'professionals and friendly relationships among friends' as the means obtained are 6.02 and 5.99 respectively. The mean for 'no evidence of

unresolved conflicts' was rated quite low ( $M = 4.44$ ) in comparison with the other items. This shows that the conflict needs to be managed more skillfully and competently.

#### **5.5.5. The Effectiveness of the Rewards System**

Rewards is one way of appreciating and recognizing individuals for their contribution. In the management of change process to achieve quality culture, it is important to identify key persons who could drive the process and reward them accordingly. Unfair rewards system could impede the success of the process. Thus, the University has taken the initiative to introduce quality awards with the aim to recognize those who have contributed excellently. This is also to motivate others.

In comparison to other variables of the organization functions, the information in Table 11 shows that the rewards system of the organization is poorly rated. The mean range between 4.10 to 4.91 except for opportunity to grow which is highly rated with the mean of 5.94. The mean for tasks accomplishment association with incentives has the lowest mean of 4.10. Thus, this information indicates that the organization needs to plan strategies for the improvement of the rewards system.

#### **5.5.6. The Effectiveness of the Leadership Contributions**

The importance of leadership in an organization can be described as a driver of a bus. He is responsible to drive the members to the targeted destination professionally. He should be skillful and knowledgeable. Besides that, he must be able to make decisions in any emergency cases. Hence, in the management of change process to achieve quality

culture, leadership is expected to firstly have a clear picture of what needs to be changed. Such information would enable them to make decisions on how to implement the change professionally. Such efforts would enable the organizational members to know clearly how to contribute for the achievement of the organization target for changing.

Table 11 also presents managers' views on levels of perception of the organization leadership. A majority of the respondents agreed that the organization has helpful immediate supervisors with the mean of 5.79. In general, the effectiveness of the leadership contribution towards the effectiveness of the management of change is at the satisfactory level as shown by the means which range from 5.25 – 5.79.

Table 11: The effectiveness of the organization purpose, organization structure, mechanisms, within organizational relationships, rewards system and leadership contribution

<b>Organization functions</b>	<b>Mean</b>	<b>S.D.</b>
<b>Organization purpose</b>		
Goals are clearly stated	5.93	1.10
Goals are agreed by employees	5.78	0.87
Goals are understandable	5.96	0.94
Priorities of organization understood	4.98	1.23
Enough input to establish unit goals	5.37	0.99
<b>Organization structure</b>		
Organization's division of labor is flexible	5.11	1.27
Organization's division of labor is intended to reach organization goals	5.52	1.04
Tasks were divided in a logical manner	5.19	1.16
Unit's structure is well designed	5.21	1.35
Organization's division of labor helps to reach goals	5.06	1.21
<b>Helpful mechanisms</b>		
Immediate supervisor is supportive	5.77	1.07
Information is available to do a good job	5.55	0.96
Mechanisms to bind the organization is adequate	5.11	1.45
Other work units are helpful	5.24	1.15
Organization's planning & control effort are helpful	5.30	1.16
<b>Intra organization relationships</b>		
Relationship with supervisor is harmony	6.02	0.92
Everyone is free to talk to someone else about work-related problem	5.64	1.15
Relationship among members is friendly & professional	5.99	0.91
Establishment of relationship with those related is done	5.81	0.89
No evidence of unresolved conflicts	4.44	1.39
<b>Rewards system</b>		
Opportunity to grow is offered	5.94	0.94
Pay scale & benefits are equitably treated	4.91	1.34
Opportunity for promotion exists	4.71	1.51
Salary is commensurate with the job perform	4.93	1.41
All tasks are associated with incentives	4.10	1.40
<b>Leadership support</b>		
Immediate supervisor are helpful with helpful ideas	5.79	1.08
Leadership norms are helpful for organization	5.38	0.98
Leadership's effort help to fulfill organization's goals	5.25	1.17
Boss's attempt to guide work effort is clear	5.50	1.11
Boss's efforts to influence is understood	5.29	1.26

## 5.6. Tests of hypotheses

A Pearson Correlation was conducted to evaluate the strength of the relationship between the independent and dependent variables. According to Green et al. (2000: 235), Pearson Correlation is an index of effect size whose value range from -1 to +1. A correlation of +1 indicates that as scores on one variable increase across cases the scores on the dependent variables increase precisely at a constant rate, and vice versa if the correlation is -1. Hence, it could be understood that correlation coefficients is used to show the magnitude and direction of relationships between dependent and independent variables (Emory & Cooper, 1991: 583).

The independent variables in this research are managers' perception towards the dimension that indicates the effectiveness of management of change which includes commitment, culture, participative management, communication and organizational learning; managers' attitude towards change; managers' behavior in the implementation of quality principles; and the effectiveness of the organization functions which includes organization purpose, organization structure, mechanisms, rewards system, intra organization relationships and leadership support. The dependent variable is the dimension of the effectiveness of management of change.

*H1: The higher the level of managers' involvement in the dimension of change management, the higher the level of effectiveness of management of change*

Information in Table 12 shows the correlational analyses. An asterisk (\*\*) indicates that the correlation is significant at the level 0.01. To test the significant of Ha1, several

Special Hypotheses (as mentioned in Chapter One) have been established as to examine the magnitude of relationship of the managers' perception with dimensions that indicates the effectiveness of management of change i.e. organizational commitment, work culture, participative management, communication system and organization learning.

The results presented show that the managers' organizational commitment ( $r = .756$  and  $p = .0001$ ), positive work culture ( $r = .791$  and  $p = .0001$ ), participative management ( $r = .822$  and  $p = .0001$ ), communication system ( $r = .839$  and  $p = .0001$ ) and organization learning ( $r = .747$  and  $p = .0001$ ) were highly correlated with the effectiveness of change management. In this case, the null hypotheses of the  $H_{a1}$  are rejected at 0.01 significant level.

The above results indicate that most of the correlation value ( $r$ ) is more than .747 and close to one. This indicates very strong relationship between the dependent and the dependent variables. This shows that in managing change at IIUM, the managers' organizational commitment, managers' effort to produce positive work culture, managers' participation in management, managers' involvement in the communication system as well as implementation of organization learning concept are on the right track in order to bring about effective change management.

This finding is consistent with Holman's (2003: 511) qualitative research findings that managers' right and clear perception towards the dimensions that indicate the effectiveness of management of change would positively affect the level of effectiveness of management of change in an organization. Even though the above results can be proud of, but the organization should continuously encourage its staff to practice the above dimensions in



their daily management activities as to further increase the level of effectiveness of change management.

Table 12: Pearson's Correlation between managers' perception on the dimensions that indicate the effectiveness of management of change and the effectiveness of change management

Dimension(s)	Effectiveness of change management	
	r	p
Organizational commitment	.756**	.0001
Work culture	.791**	.0001
Participative management	.822**	.0001
Communication system	.839**	.0001
Organization learning	.747**	.0001

\*\* Correlation is significant at the 0.01 level (2-tailed).

H2: *The more positive the managers' attitude towards change, the higher the level of effectiveness of management of change.*

The result of the correlational analysis in Table 13 indicates that managers' attitude towards change with the effectiveness of change management was statistically significant ( $p = .0001$ ) and highly correlated ( $r = .758$ ). Therefore, the null hypothesis is rejected at 0.01 significant level. The result suggests that, at IIUM, managers' attitude towards change is highly positive and it is interrelated with the effectiveness of change management. This result is in line with Cummings & Worley (1993: 146) suggestion that in order to achieve goals for changing, developing positive attitude is needed. This would enhance members' readiness for changing and thus, in the long run, increase the effectiveness of change management.

At IIUM, the managers' positive attitude towards change might be as a result of the top managements' continuous effort in promoting for the need to change. Among the means introduced were the issuance of Quality Quest beside continuous activities to promote the benefit of changing for example Quality Day (where those present were briefed on the overall progress of the organization effort to change as well as each unit progress) and Quality Award.

Such activities indirectly motivate managers to work harder to ensure that their units are able to achieve the highest ranking within the organization and to ensure that their excellent contribution is appreciated. As the change management is still in progress, the organization should be more careful and meticulous in its decision-making activities which could affect the managers' attitude towards change. It is important to harness positive and supportive attitude towards change and this should be the priority of the organization as it could affect the managers' readiness and support for changing and finally affect the level of effectiveness of management of change.

*H3: The greater the implementation of quality principles, the higher the level of effectiveness of management of change.*

The results of the correlational analysis of behavior in the implementation of quality principles with the effectiveness of management of change show that it was statistically significant ( $p = 0.01$ ). Therefore, the null hypothesis is rejected at 0.01 significant level. However, the relationship between the dependent and independent variables is moderate as shown by the  $r$ -value of .421 (Emory & Cooper, 1991: 583). In comparison with the other

four dependent variables [managers' perception ( $r = .79$ ); managers' attitude ( $r = .758$ ) and organizational functions ( $r = .677$ ); managers' behavior has the lowest coefficient correlation value ( $r = .421$ ) with the effectiveness of change management.

This result is seen as contradicting the highest means obtained under the descriptive analysis where it was highly scored ( $M = 4.13$ ) in comparison with the other two variables measured on a 5-point scale i.e. attitude ( $M = 3.7$ ) and perception on the dimensions that indicate the effectiveness of change management ( $M = 3.75$ ). Nevertheless, the result suggests that managers' behavior in the implementation of quality principles is correlated with the level of effectiveness of management of change. Thus, the effort to improve the level of ISO certification from *MS ISO 9002: 94* to *MS ISO 9002: 200* is seen as the top managements' continuous attempt to strengthen managers' behavior in implementing quality principles in the management. The result is depicted in Table 13.

Table 13: Pearson's Correlation between managers' attitude towards change and managers' behavior in the implementation of quality principles with the effectiveness of change management

Factor(s)	Effectiveness of change management	
	<i>r</i>	<i>P</i>
Attitude towards change	.758**	.0001
Behavior in the implementation of quality principles	.421**	.0001

\*\* Correlation is significant at the 0.01 level (2-tailed).

*H 4: The more effective the organization functions, the higher the level of effectiveness of management of change.*

Table 14 presents the results of the correlational coefficient analyses of the organizational functions with the effectiveness of the management of change. Six special hypotheses have been established to measure the organizational functions which are organization purpose, organization structure, rewards system, intra organization relationships, mechanisms and leadership support. The results indicate that the correlation of the clarity of the organization purpose ( $r = .579$  and  $p = .0001$ ), the appropriateness of the organization structure ( $r = .598$  and  $p = .0001$ ), the level of implementation of the rewards system ( $r = .518$  and  $p = .0001$ ), the closeness of the relationships between individuals, units and tasks ( $r = .614$  and  $p = .0001$ ), the helpfulness of the management mechanisms ( $r = .685$  and  $p = .0001$ ), and the level of leadership support ( $r = .621$  and  $p = .0001$ ) with the effectiveness of change management were statistically significant. Therefore, the null hypotheses are rejected at 0.01 significant level.

Based on the coefficient correlation value obtained, it shows that the relationship between the effectiveness of the organization functions and effectiveness of change management could be said as strong with the  $r$ -value being more than .5. The strongest correlated organization function with the effectiveness of change management is management mechanisms and the weakest is rewards system.

Based on the descriptive and inferential analysis, the rewards system (with the mean of 4.92 and the  $r$ -value of .518 respectively) is seen as the organizational function that highly in need to be improved. Although IIUM adopts the government's rewards system policy, it

should be more creative to increase the managers' satisfaction towards it. It is suggested that the top management should make a thorough investigation in order to identify what is the cause for the managers' dissatisfaction towards the rewards system. The question is whether it is due to the system itself or is an implementation problem.

In addition to the above, organization purpose and organization structure are other functions that need to be given consideration. Although the means and the correlation coefficient values of these two functions are good ( $M = 5.61$  &  $5.22$  and  $r = .579$  &  $.598$  respectively), they also indicate that there is room for improvement. Effort should be taken to increase the means to close to 7 and  $r$  close to 1. In general, it could be said that the effectiveness of the IIUM organization functions are highly correlated with the effectiveness of change management.

Table 14: Pearson's Correlation between organizational functions and the effectiveness of change management

Organizational functions	Effectiveness of change management	
	<i>r</i>	<i>p</i>
Organization purpose	.579**	.0001
Organization structure	.598**	.0001
Rewards system	.518**	.0001
Within organizational relationships	.614**	.0001
Management mechanisms	.685**	.0001
Leadership contribution	.621**	.0001

\*\* Correlation is significant at the 0.01 level (2-tailed).